

REMARKS

Claims 1-41 are currently pending in the subject application and are presently under consideration. Claims 7, 9, 10, 12, 23-26, 38, 40 and 41 have been amended as shown at pages 2-18 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 7, 9, 10, 23, 25, 26, 38, 40 and 41 Under 35 U.S.C. §101

Claims 7, 9, 10, 23, 25, 26, 38, 40 and 41 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Claims 7, 9, 10, 23, 25, 26, 38, 40 and 41 have been amended to address any issues related to this rejection. Therefore, this rejection should be withdrawn.

II. Rejection of Claims 1-11 Under 35 U.S.C. §103(a)

Claims 1-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson, *et al.* (US 6,684,250) in view of Ahuja, *et al.* (US 6,981,055 B1). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Anderson, *et al.* and Ahuja, *et al.* do not teach each and every element of applicants' invention as recited in the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The subject invention relates to determining the geographic location of Internet hosts. The location of an Internet host is determined by way of a data store and location codes extracted from router labels associated with nodes along the path from a computer system to the Internet host. The location may be selectively corrected, for example, if a time delay of a transmission from a computer to the internet host is greater than a threshold indicating that the Internet host and intermediate node are not geographically close. In particular, independent claim 1 (and similarly recited in independent claims 7-11) recites *a network path between a host IP address associated with the Internet host and the computer system, wherein the network path comprises the computer system, the Internet host, and at least one intermediate network node...determining a delay time associated with a transmission from the computer system to receipt of the transmission at the Internet host along the network path; and selectively correcting the location estimate according to the delay time associated with the network path.*

Anderson, *et al.* does not teach or suggest the aforementioned novel aspects of applicants' invention as recited in the subject claims. The cited art primarily employs host location information stored with databases along with partial and full string analysis, traceroute information, and number of hops in traceroutes to estimate the location of a host. However, as conceded in the Office Action, Anderson, *et al.* fails to teach transmission time delay measurements from the host to a computer system to correct location estimates. Moreover, contrary to assertions in the Office Action, Anderson, *et al.* is silent regarding employing a delay time in selectively correcting the location estimate. The Office Action cites a several sections of the prior art as evidence of selectively correcting the location estimate, however, applicants' representative disagrees with this assertion. Figure 4A merely discloses a data flow diagram and does not provide and detailed description of the elements of the figure. Likewise, Figure 9B and the section of the cited art referenced at column 17, lines 42-48 points to a single sentence where Anderson *et al.* makes a casual reference to latency calculations. Anderson, *et al.* provides no further details as to what these latency calculations are and how they are used anywhere in the specification or drawings. This section merely discloses that the several possible methods of location estimation may be employed such that each method will be employed successively until a method does not fail. Column 21, lines 53-56 disclose that a block of addresses near to the subject network address is identified. Then an algorithm is employed to determine if the block of addresses has been divided into subnets. There is no selective correction of a provided

location estimate disclosed in this reference. Furthermore, column 3, lines 11-24 merely discloses that several algorithms may be executed to provide potential locations. Then a confidence factor is employed to determine which potential location to provide as the location estimate. This location estimate is not selectively corrected afterwards, especially not using a delay time measurement along the network path. The subject claims produces an initial location estimate and then selectively corrects this estimate based upon the transmission delay time measurement along the network path. The cited art does not disclose this selective correction mechanism. Ahuja, *et al.* is cited as disclosing transmission time measurement along a network path to estimate distance. Several distance measurements are then employed to form intersecting circles to estimate the location. However, the cited reference is silent regarding selectively correcting the location estimate. Therefore, it is clear that Anderson, *et al.* and Ahuja, *et al.* fail to teach or suggest determining a delay time associated with a transmission from the computer system to receipt of the transmission at the Internet host along the network path that includes at least one intermediate host; and *selectively correcting the location estimate according to the delay time associated with the network path.*

In view of at least the foregoing, applicants' representative respectfully submits that Anderson, *et al.* and Ahuja, *et al.*, alone or in combination, fail to teach or suggest all elements of applicants' invention as recited in independent claims 1, 7-11 (and claims 2-6 that depend there from), and thus fails to make obvious the claimed invention. Accordingly, withdrawal of this rejection is respectfully requested.

III. Rejection of Claims 14-22 and 27-41 Under 35 U.S.C. §103(a)

Claims 14-22 and 27-41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ahuja, *et al.* (US 6,981,055 B1) in view of Anderson, *et al.* (US 6,684,250). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Anderson, *et al.* and Ahuja, *et al.* do not teach each and every element of applicants' invention as recited in the subject claims.

Independent claim 27 recites *clustering together IP addresses corresponding to hosts in the same geographic location according to network routing information to obtain cluster information; ... computing a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host.* Contrary to assertions in the Office Action,

Anderson *et al.* also fails to teach or suggest this aspect. Applicants' claimed invention can compute a dispersion metric of the statistical variability of locations represented by the cluster of IP addresses to represent the accuracy of the location estimate of the host. The section of Anderson *et al.* cited in the Office Action refers to an algorithm that locates the upper and lower bounds of a range of IP addresses within a block of IP addresses that share some common information. This algorithm computes upper and lower bounds, not a dispersion metric. A dispersion metric is a measure of statistical variability of members of a population. Accordingly, Anderson *et al.* fails to teach or suggest computing a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host. The sections of prior art cited in the Office Action Response to Arguments section makes a general statement regarding metrics and statistical methodologies and providing a set of associated probabilities that indicate the accuracy of the location. This section describes a probability estimate of the accuracy of the location, not a dispersion metric describing the variability of members of a population. Anderson *et al.* is silent regarding a dispersion metric. Therefore, the cited art fails to teach or suggest computing a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host.

Independent claim 38 (and similarly independent claims 39-41, as well as independent claim 12 from which claims 14-22 depend) recites *a clustering component adapted to cluster together IP addresses corresponding to hosts in the same geographic location according to network routing information to obtain cluster information; ... and a correction component to compute a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host and selectively providing the location estimate.* As discussed above with respect to the similar limitations of independent claim 27, Anderson *et al.* also fails to teach or suggest a correction component to compute a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host. Moreover, the subject claims disclose selectively providing the location estimate. Applicants' claimed invention can determine whether a location estimate should be provided based upon the accuracy of the estimate, for example exceeding a threshold. Furthermore, Ahuja, et al is silent regarding calculating a dispersion metric or selectively providing the location estimate. Column 8, line 42-64 is cited to disclose this feature. However, the section merely discloses that if more distances are calculated, the precision of the estimate is increased. The section does not disclose a

dispersion metric representing the accuracy of the location estimate. Therefore, Anderson, *et al.* and Ahuja, *et al.* fail to teach or suggest a correction component to compute a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host and selectively providing the location estimate.

In view of at least the foregoing, applicants' representative respectfully submits that Anderson, *et al.* and Ahuja, *et al.*, alone or in combination, fail to teach or suggest all elements of applicants' invention as recited in independent claims 12, 38-41 (and claims 14-21 that depend there from), and thus fails to make obvious the claimed invention. Accordingly, withdrawal of this rejection is respectfully requested.

IV. Rejection of Claims 12, 13 and 23-26 Under 35 U.S.C. §102(e)

Claims 12, 13 and 23-26 stand rejected under 35 U.S.C. §102(e) as being anticipated by Ahuja, *et al.* (US 6,981,055 B1). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Anderson, *et al.* and Ahuja, *et al.* do not teach each and every element of applicants' invention as recited in the subject claims.

Independent claim 12 (and similarly independent claims 23-26) recites *computing a dispersion metric representative of the accuracy of the location estimate of the location of the Internet host and selectively providing the location estimate based upon the dispersion metric*. As discussed above with respect to claims 38-41, Anderson, *et al.* and Ahuja, *et al.* fail to teach this novel feature of the subject claims.

In view of at least the foregoing, applicants' representative respectfully submits that Anderson, *et al.* and Ahuja, *et al.*, alone or in combination, fail to teach or suggest all elements of applicants' invention as recited in independent claims 12, 23-26 (and claim 13 that depends there from), and thus fails to make obvious the claimed invention. Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP189USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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